

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: June 18, 2001, 15:32:45 ; Search time 46.42 Seconds
(without alignments)
351.171 Million cell updates/sec

Title: US-09-653-755a-5

Perfect score: 1121

Sequence: 1 EHVLTQSPALMSASPGSEKVT.....EATHTKTSPIYKSFNRNEC 214

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

1: p1r1:*
2: p1r2:*
3: p1r3:*
4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	988.5	88.2	235	2	S25058 Ig kappa chain - m
2	890	79.4	218	2	JC5810 monoclonal antibod
3	886	79.0	220	2	A31790 Ig kappa chain V r
4	883	78.8	218	2	S68241 Ig kappa chain V r
5	877	78.2	234	2	S14237 Ig kappa chain pre
6	876.5	78.2	225	2	S37484 Ig kappa chain - m
7	869.5	77.6	219	2	S38865 Ig kappa chain pre
8	869	77.5	234	2	S01320 Ig kappa chain - m
9	867.5	77.4	219	2	PC4203 Ig kappa chain (mo
10	861.5	76.9	219	2	SS2028 Ig kappa chain (mo
11	857	76.4	210	2	A56169 Ig kappa chain V r
12	852	76.0	214	2	S68212 Ig kappa chain (Ma
13	851.5	76.0	225	2	JL0029 Ig kappa chain pre
14	846.5	75.5	219	2	S16112 Ig kappa chain V r
15	845.5	75.4	217	2	S42712 Ig kappa chain - m
16	774	69.0	240	2	S06084 Ig kappa chain pre
17	700.5	62.5	215	2	JE0244 Ig kappa chain NIG
18	693.5	61.9	215	2	JE0242 Ig kappa chain NIG
19	669.5	59.7	197	2	S29593 Ig kappa chain (WM
20	663.5	59.2	215	2	JE0243 Ig kappa chain NIG
21	663	59.1	230	2	S33161 Ig kappa chain - s
22	654.5	58.4	215	2	A23746 Ig kappa chain V-I
23	593	52.9	216	2	JE0241 Ig kappa chain Am3
24	577.5	51.5	229	2	PT0219 Ig kappa chain V-C
25	568.5	50.7	229	2	A20969 Ig kappa chain pre
26	567	50.6	126	2	gene Pvt-1a/Ig-Ck
27	562	50.1	106	1	Ig kappa chain C r
28	512.5	45.7	130	2	Ig kappa chain pre
29	501.5	44.7	238	2	A49633 Ig lambda-like cha

30	497.5	44.4	140	2	PL0013 Ig kappa chain pre
31	493	44.0	217	2	JE0246 Ig lambda chain NI
32	484.5	43.2	109	2	PT0405 Ig light chain V r
33	484.5	43.2	130	2	A32513 Ig kappa chain pre
34	484	43.2	106	1	K1RTA Ig kappa chain C r
35	479	42.7	233	2	S29577 Ig light chain - r
36	475.5	42.4	109	2	PT0404 Ig light chain V r
37	471.5	42.1	228	2	S29575 Ig light chain - r
38	469.5	41.9	130	2	S04573 Ig kappa chain pre
39	469	41.8	106	1	K1RTB Ig kappa chain C r
40	468.5	41.8	113	2	S03410 Ig kappa chain pre
41	466	41.6	213	2	S21066 Ig lambda chain V
42	466	41.6	236	2	S25746 Ig lambda chain -
43	464.5	41.4	108	2	PL0278 Ig kappa chain V r
44	464.5	41.4	233	2	S25744 Ig lambda chain -
45	463.5	41.3	216	2	S29258 Ig lambda chain V

ALIGNMENTS

RESULT 1
S25058
Ig kappa chain - mouse
C:Species: Mus musculus (house mouse)
C>Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 21-Jan-2000
C:Accession: S25058
R:Fischer, R.; Voss, A.; Niersbach, M.; Munziker, W.; Hirsch, R.J.; Kreuzaler, F.
submitted to the EMBL Data Library, July 1992
A:Description: Production of a Tobacco mosaic virus (TMV) inactivating neotop specific
A:Reference number: S25057
A:Accession: S25058
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-235 <F1S>
A:Cross-references: EMBL:X67211; NID:954828; PIDN:CAA47650.1; PID:954829
C:Superfamily: Immunoglobulin V region; immunoglobulin homology
F:38-111/Domain: immunoglobulin homology <IM>

Query Match 88.2%; Score 988.5; DB 2; Length 235;
Best Local Similarity 90.1%; Pred. No. 2.5e-55;
Matches 192; Conservative 6; Mismatches 12; Indels 3; Gaps 2;
QY 3 VLTPSPALMSASPGSEKVTMTCTCRASSVSSYLHWYRQKSGASPKIMIVSTNSLASGVPAR 62
|||||
Db 25 VLTPSPALMSASPGSEKVTMTCTCRASSVSSK--MOWYQKSGTSPKRWIVDTSKLASGVPGR 82
QY 63 FSGSGSGTSTSLTSSVAEDAAATYYCOOYSGY-RTFGGTRLEIKRADAPTVSIFPPS 121
|||||
Db 83 FSGSGSGTSTSLTSSVAEDAAATYYCOOWSNPLTFGAGTRLEIKRADAPTVSIFPPS 142
QY 122 SEOLTSGASVYCFLNFFPRDINVKMKIDGSEKONGVNSMTDSDSTYSMSSTLT 181
|||||
Db 143 SEOLTSGASVYCFLNFFPRDINVKMKIDGSEKONGVNSMTDSDSTYSMSSTLT 202
QY 182 TKDEYERHNSYTCEATHTKTSPIYKSFNRNEC 214
|||||
Db 203 TKDEYERHNSYTCEATHTKTSPIYKSFNRNEC 235
RESULT 2
JC5810
monoclonal antibody 13-1 light chain - mouse
C:Species: Mus musculus (house mouse)
C>Date: 04-Feb-1998 #sequence_revision 13-Mar-1998 #text_change 21-Jan-2000
C:Accession: JC5810
R:Akashi, S.; Kato, K.; Torizawa, T.; Dotmae, N.; Yamaguchi, H.; Kamachi, M.; Harada,
Biochem. Biophys. Res. Commun. 240, 566-572, 1997
A>Title: Structural characterization of mouse monoclonal antibody 13-1 against a porp
A:Reference number: JC5810; MUID:98063277
A:Accession: JC5810
A:Molecule type: protein

A:Residues: 1-218 <AK>
C:Comment: This catalytic antibody has peroxidase oxidase. It is directed against a porphyrin
C:Superfamily: immunoglobulin V region; immunoglobulin homology
F:16-94/Domain: immunoglobulin homology <IM>

Query Match	79.4%;	Score 890;	DB 2;	Length 218;
Best Local Similarity	80.1%;	Pred. No. 3.4e-49;		
Matches 173;	Conservative 13;	Mismatches 26;	Indels 4;	Gaps 2

```

0Y      3 VLTOSPATMSAPPEKYMTCRASSSVSS---YLHMYRDKSGASPKLWYIWTNLSASGV 59
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:
Db      3 VLTOSPALWALDQRATISCRASSSVASAGYIYMHYQKPGPPKLLISLANSNEG 62
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:

0Y      60 PARFGSGSGSTSYSLTTSVYAEADAAIYVYCOQYSGY-RTFGGGKTLTKRADAAPYISF 118
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:
Db      63 PARFGSGSGSGIDFTLNLHPVEEBYVATYYCOHSKRELPLTFGAGKTLKLRADAAPYISF 122
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:

0Y      119 PSSSEQLTSGGASVYCFLNPNFYPRDIWNKMKIDSESRONGVLSNWTQDSDKSDYSMSST 178
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:
Db      123 PSSSEQLTSGGASVYCFLNPNFYPRDIWNKMKIDSESRONGVLSNWTQDSDKSDYSMSST 182
      ||||| :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||: :||:

```

Oy	179	LTLTRDEYERHNSYTCATHKTSPLVKSFNRRNEC	214
Db	183	LTLRKDEYERHNSYTCATHKTSPLVKSFNRRNEC	218

RESULT 3
A31790
Ig kappa chain V region (17/9) - mouse
C:Species: Mus musculus (house mouse)
C:Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_change 21-Jan-2000
C:Accession: A31790
R:Schulze-Gahmen, U.; Rini, J.M.; Arevalo, J.; Stura, E.A.; Kenten, J.H.; Wilson, I.A.
J. Biol. Chem. 265, 17100-17105, 1988
A:Title: Preliminary crystallographic data, primary sequence, and binding data for an ar
A:Reference number: A92686; MUID:89034213
A:Accession: A31790
A:Molecule type: mRNA
A:Residues: 1-220 <SCHE>
A:Cross-references: GB:M23626; GB:J04061; NID:g533234; PIDN:AAA39162.1; PID:g533235
C:Superfamily: Immunoglobulin V region; immunoglobulin homology
C:Keywords: heterotetramer; immunoglobulin
C:16-96/Domain: immunoglobulin homology <IMM>

Query Match	79.0%;	Score 886;	DB 2;	Length 220;
Best Local Similarity	78.4%;	Pred. No. 6.1e-49;		
Matches 171;	Conservative 17;	Mismatches 24;	Indels 6;	Gaps 2

OY	VLTQSPKIMASISPEKERATMTCRASSVSS-----YLHVRKSGASPKMLITSTNLS	57
Db	3 VMTDSPSLIYTAGEKXTMCTSSQSLENSGKRKNLITLYQAKRGCPFKILTYMASTRS	62
OY	58 GVPARFGSGSGSYTSLTISSVEAEADATATYCO-QYSGYRTFGGGTKLEIKRADAPTVS	116
Db	63 GVPRDFGTGSGGTFDTLLISSVAQEDLAIVYYCNDYSNPILTFGGGRFLELRADAAPTYS	122
OY	117 IFPPSSSEQLTSGCASVYCFLNNFYPRDINKKWKIDGSEERONGVLNSTWDODSKDYTSMS	176
Db	123 IFPPSSSEQLTSGCASVYCFLNFPKPDKINVKWKIDGSEERONGVLNSTWDODSKDYTSMS	182
OY	177 STLTLTKDEYERHNSTYCEATHKTSTSPITYKSRRNRC	214
Db	183 STLTLTKDEYERHNSTYCEATHKTSTSPITYKSRRNRC	220

```

RESULT      4
S68241
Ig kappa chain V region (Mab13-1) - mouse (fragment)
N:Alternate names: immunoglobulin light chain
C:Species: Mus musculus (house mouse)
C:date: 24-Aug-1996 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000

```

C:Accession: S68241; S68214
R:Tagaki, M.; Kohda, K.; Hamuro, T.; Harada, A.; Yamaguchi, H.; Kamachi, M.; Imanaka, S.
Submitted to the EMBL Data Library, March 1994
A:Description: Specific peroxidase activity by formation of an antibody L-chain-porphyrin
A:Reference number: S68241

A: Molecule type: mRNA
A: Residues: 1-218 <TAK>
A: Cross-references: EMBL:D9670; NTD:9473962; PIDD:BA06141.1; PIDD:9473963
R: Takagi, M., Kohda, K., Hamuro, T.; Harada, A.; Yamaguchi, H.; Kamachi, M.; Imanaka, EBS Lett. 375, 273-276, 1995
A: Title: Thermostable peroxidase activity with a recombinant antibody L chain-porphyrin
A: Reference number: S68211; MUID:96085223

A:Accession: S68214
 A:Status: nucleic acid sequence not shown
 A:Molecule type: mRNA
 A:Residues: 'NT', 3-212 <TAN>
 A:Cross-references: EMBL:D29670
 C:Superfamily: Immunoglobulin V region; immunoglobulin homology
 ;Keywords: Immunoglobulin

Query Match	78.8%;	Score 883;	DB 2;	Length 218;
Best Local Similarity	78.9%;	Pred. No. 9.2e-49;		
Matches 172;	Conservative 14;	Mismatches 28;	Indels 4;	Gaps 2

QY	1	ENVLTQSPALMSASBPSEVNTTTCASSSVSS---	YLHWYRQKSGAPSPKLMITYSTULAS	57
		: : : : : : :		
Db	1	ELVLTQSPALMSASLIGQRATISCRASSSVASSGYI	YHWYRQKQGP	60
		: : : : : : :		
QY	58	GVPARFSGSGGTSYSLTISSEVAEDATAYYCQYSG	-RTFGSGTLEIKRADAPTVS	116
		: : : : : : :		
Db	61	GVPARFSGSGGTDPTLTIHPVEEDVATYYCQHSREL	PLTFGAGTLEIKRADAPTVS	120
		: : : : : : :		
QY	117	IFPPSSDQLTISGASVYCCFLNPPYPRDIINWKAK	IDGSEBRQNVLSNTDODSKDSTYSMS	176
		: : : : : : :		
Db	121	IFPPSEQLITSGGASVYCCFLNPPYPRKIDINWKAK	IDGSEBRQNVLSNTDODSKDSTYSMS	180
		: : : : : : :		
QY	177	STFLTKDEYERHNSYTCSEATHKSTSPYKSFRRNRC	214	
		: : : : : : :		
Db	181	STFLTKDEYERHNSYTCSEATHKSTSPYKSFRRNGC	218	
		: : : : : : :		

```

RESULT      5
S14237
Ig kappa chain precursor (15C5) - mouse
C:Species: Mus musculus (house mouse)
C:Date: 25-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 21-Jan-2000
C:Accession: S14237
R:Vandamme, A.M.; Bulens, F.; Bernar, H.; Nelles, L.; Lijnen, R.H.; Collen, D.
Eur. J. Biochem. 192, 767-775, 1990
A:Title: Construction and characterization of a recombinant murine monoclonal antibody
A:Reference number: S14236; MUID:91006173
A:Accession: S14237
A:Molecule type: mRNA
A:Residues: 1-234 <VAN>
A:Cross-references: EMBL:X56394; NID:g51622; PIDN:CAA39805.1; PID:g51623
C:Superfamily: Immunoglobulin V region; Immunoglobulin homology
C:Keywords: heterotetramer; Immunoglobulin
/36-110/Domain: immunoglobulin homology <IMM>

```

Query Match	78.2%;	Score 877;	DB 2;	Length 234;
Best Local Similarity	79.7%;	Pred. No. 2.3e-48;		
Matches 169;	Conservative 15;	Mismatches 26;	Indels 2;	Gaps 2

[illegible]

C:Comment: This protein is specific for human plasma apolipoprotein A-I of high-density
C:Superfamily: Immunoglobulin V region; Immunoglobulin homology
F:1-112/Domain: V region #status predicted <VRG>
F:113-219/Domain: C region #status predicted <CRG>

Query Match 77.4%; Score 867.5; DB 2; Length 219;
Best Local Similarity 77.4%; Pred. No. 8.6e-48;
Matches 168; Conservative 16; Mismatches 28; Indels 5; Gaps 2;

3 VLTQSPALMSAPGKGVMTCRASSV---SSSYLHWYRKGSGAPKLIYTSNLSAG 58
Db 3 LMTQTPSLVSLGDDASISCRSSQIVHTNGNTYLEWTLQKPGQSKLIYVSNRFSG 62
59 VPAFSGSGSGTSTSLTSSVEAEDATYYCOQYSGY-RTFGGCTKLEIKRADAPTYSI 117
Db 63 VPAFSGSGSGTDFTLKISVREAEDELGVYVCPFGSHVPRFPGGCTKLEIKRADAPTYSI 122
118 FPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 177
Db 123 FPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 182
178 TLTLTKDEYERHNSYTCEATHKSTSPYKSFNRNEC 214
Db 183 TLTLTKDEYERHNSYTCEATHKSTSPYKSFNRNEC 219

RESULT 10

Ig kappa chain - mouse
C:Species: Mus musculus (house mouse)
C:Date: 07-May-1995 #sequence_revision 21-Jul-1995 #text_change 21-Jan-2000
C:Accession: S52028
R:van Engelen, F.; Schouten, A.; Molthoff, J.W.; Roostien, J.; Dirkse, W.G.; Schots, A.;
submitted to the EMBL Data Library, August 1994
A:Description: Coordinate expression of antibody subunit genes yields high levels of fun
A:Reference number: S52028
A:Accession: S52028
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-219 <VAN>
A:Cross-references: EMBL:J35138; NID:g522336; PIDN:AAA67525.1; PID:g522337
C:Superfamily: Immunoglobulin V region; Immunoglobulin homology
C:Keywords: heterotetramer; Immunoglobulin
F:16-95/Domain: Immunoglobulin homology <IMM>

Query Match 76.9%; Score 861.5; DB 2; Length 219;
Best Local Similarity 77.4%; Pred. No. 2e-47;
Matches 168; Conservative 14; Mismatches 30; Indels 5; Gaps 2;

3 VLTQSPALMSAPGKGVMTCRASSV---SSSYLHWYRKGSGAPKLIYTSNLSAG 58
Db 3 VMTQSPALMSAPGKGVMTCRASSV---SSSYLHWYRKGSGAPKLIYTSNLSAG 62
59 VPAFSGSGSGTSTSLTSSVEAEDATYYCOQYSGY-RTFGGCTKLEIKRADAPTYSI 117
Db 63 VPAFSGSGSGTDFTLKISVREAEDELGVYVCPFGSHVPRFPGGCTKLEIKRADAPTYSI 122
118 FPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 177
Db 123 FPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 182
178 TLTLTKDEYERHNSYTCEATHKSTSPYKSFNRNEC 214
Db 183 TLTLTKDEYERHNSYTCEATHKSTSPYKSFNRNEC 219

RESULT 11

Ig kappa chain V region (clone 23.2) - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 19-Oct-1995 #sequence_revision 19-Oct-1995 #text_change 11-Jan-2000

C:Accession: A56169
R:Montardini, C.; Kleber-Emmons, T.; Vonfeldt, J.M.; O'Walley, B.; Rosenbaum, H.; God
J. Biol. Chem. 270, 6628-6638, 1995
A:Title: Recombinant antibodies in bioactive peptide design.
A:Reference number: A56169; MVID:95204454

A:Accession: A56169
A:Status: preliminary; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-210 <MON>
C:Superfamily: Immunoglobulin V region; Immunoglobulin homology
C:Keywords: heterotetramer; Immunoglobulin

Query Match 76.4%; Score 857; DB 2; Length 210;
Best Local Similarity 80.3%; Pred. No. 3.8e-47;
Matches 167; Conservative 13; Mismatches 24; Indels 4; Gaps 2;

3 VLTQSPALMSAPGKGVMTCRASSV---SYLHWYRKGSGAPKLIYTSNLSAG 59
Db 3 VLTQSPALMSAPGKGVMTCRASSV---SYLHWYRKGSGAPKLIYTSNLSAG 62
60 PAFSGSGSGTSTSLTSSVEAEDATYYCOQYSGY-RTFGGCTKLEIKRADAPTYSI 118
Db 63 PAFSGSGSGTDFTLNHPVEEEDATYYCOHRELPTFGGCTKLEIKRADAPTYSI 122
119 PPSSEQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 178
Db 123 PPSSEQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 182
179 TLTLTKDEYERHNSYTCEATHKSTSPY 206
Db 183 TLTLTKDEYERHNSYTCEATHKSTSPY 210

RESULT 12

S68212
Ig kappa chain (Mab03-1) - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 29-Jul-1997 #sequence_revision 29-Aug-1997 #text_change 11-Jan-2000
C:Accession: S68212
R:Rakagi, M.; Kohda, K.; Hamuro, T.; Harada, A.; Yamaguchi, H.; Kamachi, M.; Imanaka,
FEBS Lett. 375, 273-276, 1995
A:Title: Thermostable peroxidase activity with a recombinant antibody L chain-porphyr
A:Reference number: S68211; MVID:96085233
A:Accession: S68212
A:Status: preliminary; nucleic acid sequence not shown
A:Molecule type: mRNA
A:Residues: 1-214 <YAK>
A:Cross-references: EMBL:D29668
C:Superfamily: Immunoglobulin V region; Immunoglobulin homology

Query Match 76.0%; Score 852; DB 2; Length 214;
Best Local Similarity 78.3%; Pred. No. 7.9e-47;
Matches 166; Conservative 18; Mismatches 22; Indels 6; Gaps 2;

3 VLTQSPALMSAPGKGVMTCRASSV---SYLHWYRKGSGAPKLIYTSNLSAG 57
Db 3 VMTQSPALMSAPGKGVMTCRASSV---SYLHWYRKGSGAPKLIYTSNLSAG 62
58 GVPARFSGSGTSTSLTSSVEAEDATYYCOQ-YSGYRTFGGCTKLEIKRADAPTYS 116
Db 63 GVPARFSGSGTDFTLTSTVQAEEDLADYFCQHSYTFYRTFGGCTKLEIKRADAPTYS 122
117 IPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 176
Db 123 IPPSSQQLTSGGASVYCFLNFPYPRDINVKWKIDGSEKONGVLSWTDQSKDSTYSMS 182
177 STLTTLTKDEYERHNSYTCEATHKSTSPYK 208
Db 183 STLTTLTKDEYERHNSYTCEATHKSTSPYK 214

